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WHAT IS AN ONLINE COMMUNITY? A NEW DEFINITION BASED AROUND COMMITMENT, CONNECTION, RECIPROCITY, INTERACTION, AGENCY, AND CONSEQUENCES

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ABSTRACT

This paper explores the concept of online community. It is divided into three main sections. The first examines the challenge of defining the concepts of *community* and being *online*. The second looks at definitions of online community as well as the ways in which the term has been used across a wide range of contexts, covering issues of attachment, emotion, community strength, motivation for participation, and relationship to technology. The third provides a general definition of online community around six key elements: commitment; connection to others; reciprocity; interaction; agency and consequences. The paper sensitises practitioners and researchers to the contested nature of community and provides a definition that is both broad and complex.

Key words

Affordance; agency; community; technology; strong ties; weak ties.

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1. INTRODUCTION

This paper offers an exploration of the online community (OC). This is important as community is evoked in many case studies of online participation including ones in the workplace (e.g.Takahashi et al., 2003); among occupational groups (e.g. Gray, 2004); in educational settings (e.g. Kommers and Kovatcheva, 2008; Newman, 2005; Palloff and Pratt, 2013); and in more informal settings such as social networking (e.g. Ellison et al., 2007), gaming (e.g. Antonellis et al., 2006; Zappen et al., 1997), product design (e.g. Paulini et al., 2014), creative pursuits (e.g. DiPaola et al., 2011; Kendall, 2008; Leyton Escobar et al., 2014) and community networks (e.g. Pinkett, 2003; Schuler, 1996; Stanley, 2003). However, while OC is a useful signifier of a field of research interest there is no clear agreement as to how OCs should be defined; how they can be differentiated and the extent to which they are shaped by technology. The aim of this paper is then to clarify the concept of online community. It does this by:

- considering the nature of social research concepts and particular difficulties posed by the terms *community* and *online*

- examining the application of the term OC in the literature in the light of these difficulties

- drawing on the literature to set out a new definition of community which captures the essence of community and enables differentiation between OCs.

The overall aim of the paper is to reach a more discriminating and critical view of OC enabling the term to be used with greater precision and critical appreciation.

2.   THE NATURE OF A CONCEPT AND DIFFICULTIES IN DEFINING COMMUNITY AND BEING ONLINE

Concepts are the building blocks of social science; they gather together related phenomena to enable more abstract and higher level thinking. In the case of community these related phenomena typically include interaction, identity, connection, and, very often, socialisation and learning. However concepts are not straightforward and there is increasing recognition that they at best offer approximations, perhaps metaphors for social phenomena (Yuan, 2013). OC is particularly troublesome as any definition needs to engage with long established questions regarding the concept of community per se, as well as to offer a view as to what is special or unique about community when 'online'.

Two of the well-established questions about community concern, first, its multi-faceted nature and, second, its normative association. As to the first, nearly all scholars (see for example Glynn, 1981; Hillery, 1972; McMillan and Chavis, 1986; Puddifoot, 1996) have noted the very large, almost bewildering, number of attempts to define and refine community as a concept. To adapt a general remark about concepts made by Dahl (1957: 201), community is 'not a Thing but many things'. Furthermore the phenomena that community seeks to capture are transitory. For example, community was once strongly associated with physical locality, albeit for the pioneers of urban geography / sociology an interest in locality always ran alongside an interest in the diversity of human interaction (e.g. Park et al., 1968 [1925].) However by the end of the twentieth century

community was seen as taking in a wide variety of referents; some of these were immediate and directly experienced and some more 'imagined' relationships with people one may not have met (e.g. Etzioni, 1959). Later Wellman et al. (2002) went further by drawing attention to a 'networked individualism', supported by modern transport and telecommunications, which allowed greater choice in establishing, or dropping, relationships and greater control over the intensity of those relationships. Sociologists, too, (e.g. Alleyne, 2002, writing about ethnic identification) as well as cultural geographers (e.g.Thrift, 2008) saw an ever looser connection of community with physical location.

While the concept of community has needed to accommodate shifting phenomena in doing so it has become large and unwieldy; even Puddifort (1996) in seeking to provide greater clarity finished with fourteen dimensions of community. Perhaps rather than talking about community in a general sense it is better to discuss different kinds of community – for example, following Gusfield (1975), relational (or sentiment) communities and physical (or locality) communities. Tönnies, too, made a much cited distinction between Gemeinschaft, characteristic of more rural, more directly experienced 'natural' societies ordered by convention, and Gessellschaft, a feature of industrial societies in which social roles were heavily differentiated and relationships were more contractual or 'rational' / instrumental. Both Gusfield and Tönnies provide useful distinctions but run the risk of presenting communities as either 'one thing or the other' when very often they will contain a mix of elements. Thus, even tightly knit, rural communities are relational as well as physical and there are elements of Gemeinschaft within all societies - indeed as Tönnies and other scholars have noted there are unexpected degrees of solidarity within contractual societies (e.g. Durkheim, 2014 [1893], Giddens, 1990). The challenge is then offering a definition of community that needs to

be broad enough to capture a mix of elements but not so overly complex as to be unworkable.

A second question that has long hung over the term community is whether it should, or indeed can, be used in a value-free way. One helpful way of exploring the question is to refer back to Gallie's (1956) idea of essentially contested concepts. These were concepts such as democracy, culture and civilisation which did not lend themselves to stable definition. In part this was because these concepts were internally complex, as put by Gallie, with 'constituent elements that could be variously described'. But, more importantly, perhaps, such concepts were ascriptive – they were terms which individuals or groups with different, sometimes very different moral values and positions, wanted to appropriate for themselves. Thus it mattered a great deal whether particular societies were, for example, called democratic or civilised. This meant that the correct use of labels could never be settled, something that generated an ever-lasting conversation about values. Gallie did not present community as inherently contested but it similarly refers to something that, throughout human history, or at least going back to Aristotle (2000), has been seen as good in itself, something inherent in human nature and to be valued on both practical and ethical grounds. Dewey, for example, saw community as allowing a more diverse, democratic and enriched life at a time of rapid change (Ryan, 1995) and the loss of community has been lamented in USA by, for example, Lynd & Lynd (1937) and Putnam (1995). Williams (1985), famously, noted that community was never used in a negative context and Glynn (1981) noted periodic appeals to community mindedness. Of course what might be prized about community changes, showing once again the flexible nature of the term. To take an example, the loose ties of city life came to be valued precisely because they were loose (see Miller, 1986; Young, 1986) and this

would have surprised early commentators such as Engels (1993 [1845]) who lamented the alienating experinece of the city.

Rather than try to discount its normative dimension, McMillan & Chavis (1986) began the task of defining community by embracing the value of social association and identified four constituent elements of community: membership (broadly a feeling of belonging); influence (a sense of making a difference to a group and of the group mattering to its members); reinforcement (the integration and fulfilment of needs); and shared emotional connection. Going further, Ladd (1998) presented an ideal type of community in which there were high levels of reciprocity and social solidarity. However, attempts at taking a more normative approach to community have not always been welcomed. For example Stacey (1969) saw the point of community study as describing and theorising on what was happening, not to imply judgement on the quality of that interaction. Stacey's appeal to a traditional value free social science was and remains attractive but does not get round the idea that community is never a value free term. If community is only operationalised around existing practice then the gap between communities as they are and what they could be (for example sites for social solidarity and for the generation of social capital) may pass unnoticed.

Not only do those looking to define OC need to address the scope and normative dimension of community but they face a further challenge: what does being online mean?. Like many other terms used to describe computing and computer usage (for example *navigate, search, map, site*) online has its origins in physical geography. In the earlier part of the twentieth century being online meant adjacent to a railway line, a physical connection which allowed mines or factories market advantages (OED, 2015). Online was later applied to describe proximity to airline routes. In computing, online was first used to describe computers or peripherals that were directly connected and powered up,

for example a printer might be online if it was controlled by a computer, offline if not. Later online (first noted in 1972) acquired a more specific connotation as being connected to a computer network, later still more specifically to the Internet.

Online has shifting connotations but the origin of the word is not helpful in that it suggests binary states: on or offline. In fact members of online communities are very much embedded in physical contexts too (i.e. they are both off and on line) as argued by Broadfoot et al., (2010); Nardi and O'Day (1999) and, in a case study of gaming in China, Lindtner et al. (2008). Furthermore, off and online worlds can merge. Members of OC may meet face-to-face, indeed their meeting may be facilitated by online activity (Lee & Lee, 2010; Rheingold, 1993; Shen & Cage, 2013), and what happens online becomes part of a discussion in face-to-face contexts (see for example Takahashi et al., 2003, in a study of 'lurking' and Subrahmanyam and Greenfield, 2008, in a discussion of adolescents' use of technology). This merging of on and off line is so pervasive in contemporary urban society that, as Graham (1998) noted, it is difficult to imagine the modern city without its internet cafés, wifi networks or to think of everyday life without mobile phones, I pads and tablets. Indeed, since the time of Graham's paper, the pace of change has increased so that the modern city has become an Internet of Things (Cabral et al., 2014), which for Kitchin (2014: 5) encompasses 'automatic doors, lighting and heating systems, security alarms, wifi router boxes, entertainment gadgets, television recorders, and so on'.

3.   HOW HAS ONLINE COMMUNITY BEEN DEFINED AND USED?

The argument in the first part of the paper is that the term OC is not straightforward; it needs to be broad enough to be useable but complex enough to allow for differentiation. In addition it should include a normative element, or at least explain why such an element is missing, and should problematise the nature of online mediation. With this in

mind, the paper now turns to examine how scholars have defined and used OC in their work.

3.1 BROAD DEFINITIONS

In practice many commentators have been content to provide very general definitions of OC and there is a consensus that the term can be used to cover a range of online participation, mediated by technology. This is reflected in Preece's definition of OC as 'any virtual social space where people come together to get and give support, to learn, or to find company' (Preece, 2001: 348) - a definition echoed in many other contributions including Kosonen (2009) and Faraj et al. (2011, p.1224). However as Preece and Maloney-Krichmar (2005) recognise it leaves OC as an inexact concept and, in seeking greater precision, Rotman and Preece (2010) saw OCs as implying: commitment to a shared domain; a shared repertoire and resources; companionship and bonding; social activity and interaction or collective efficacy. They put particular emphasis on the third and fourth of these dimensions – this in a study looking at video sharing in a You Tube environment. In similar vein, writers have stressed that community implies a sense of connection and concern for others. For example Rovai and Jordan (2004) and Santos and Hammond (1998) saw community as embodying four dimensions: spirit (a sense of belonging and identification connection); trust (an expectation that responses will be forthcoming and constructive); interaction (both social and task-oriented). A fourth dimension for Rovai was that of learning, with social interaction seen as a kind of learning.

Rovai strongly suggests that OC is not defined solely by patterns of interaction but how people feel about those patterns of interactions. Members of an OC are expected to experience an emotional connection and a sense of mutual recognition. It was the observation of this emotional dimension which surprised early researchers of OC and

which led some to adopt the term community in the first place. For example, in discussing empathy and intimacy online one commentator reflected:

> the idea of a community accessible only via my computer screen sounded cold to me at first, but I learned quickly that people can feel passionately about e-mail and computer conferences. I've become one of them. I care about these people I met through my computer, and I care deeply about the future of the medium that enables us to assemble' Rheingold (1993: xv).

3.2   REFINING THE CONCEPT

In seeking to fine tune the concept there is agreement that communities need to have 'depth' though there are different perspectives as to how deep the ties between members need to be. In an early contribution, Jones (1997) saw a minimum level of interactivity, a variety of communicators, a shared space for interaction and membership sustained over time as requisites for community or, to use his preferred concept, that of 'virtual settlement'. Other writers agree that to receive a benefit from community membership there needs to be a shared culture (Andrews et al., 2001: 1); a 'fund of knowledge' (Barton, 2012); 'social capital' (Ellison et al., 2007) or, more simply, 'social presence' (Lowenthal, 2010). For many there is a breadth and depth to interaction that allows community to be distinguished from networking and 'friending', 'following', and even from more committed 'slacktivist' or 'crowdsourcing'. Even those with quite relaxed definitions of online community suggest there should be some frequency of interaction so that groups are, for example, expected to 'communicate regularly and for some duration' (Ridings et al. 2002: 273).

Community interaction should be sustained enough to be observable and to leave observable and useable artefacts and records. Communities need to present an identifiable culture and history; as Barab et al. (2003: 238) put it OCs are a 'persistent,

sustained social network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history, and experiences focused on a common practice and/or mutual enterprise'. Communities are social phenomena and will show patterns in regard to roles and procedures. OCs are distinctive; they have an identifiable culture and their own 'cultural markers' (Barber and Badre, 1998).

OC can, however, take in looser, less frequent and primarily instrumental interactions as well as stronger, more frequent, more intimate and reciprocal ones (e.g. Haythornthwaite, 2005; Preece & Maloney Krichmar, 2005). Communities can be weak though for Fernback (2007: 49) the term has been diluted to cover 'convenient togetherness without real responsibility' and consequently has ended up meaning very little. Community has been evoked, at least rhetorically, to describe a customer base (Amazon, like many online companies, has 'community rules') or, albeit with more discrimination, the people that are 'gathered around organisations or enterprises' (Westerski et al., 2011). Wiertz and de Ruyter (2007) argue that consumers can feel some identification and gain informational advantages in firm assisted commercial communities, including peer-to-peer problem solving and information exchange.

In trying to differentiate the character of community researchers often draw on the concept of weak and strong ties put forward by Granovetter (1973) and much cited via Putnam (1995) and taken up online (e.g. Luarn & Chiu, 2015). The strength of a tie is associated with the amount of time members of a community interact with each other and the level of intimacy and emotional intensity they show in those interactions as well as their willingness to reciprocate.

Tie strength has considerable implications for returns on community membership. Weaker, heterogeneous OCs might be particularly valuable for promoting 'bridging capital' across groups (Norris, 2002) or may further provide the basis for collective action

(e.g. Agarwal, Lim, & Wigand, 2012 looking at women's rights in Saudi Arabia). Members can pick up information that may be of considerable practical benefit to them as, say, in the case of self-help groups (e.g. Lasker et al. 2005 who describe an online group for those suffering from an autoimmune liver disease). Siemens (2005) presents the case for weak ties well by drawing attention to the myriad ways in which learners are connected and can share ideas in contemporary society:

> Weak ties are links or bridges that allow short connections between information. Our small world networks are generally populated with people whose interests and knowledge are similar to ours. Finding a new job, as an example, often occurs through weak ties. This principle has great merit in the notion of serendipity, innovation, and creativity. Connections between disparate ideas and fields can create new innovations.

Here again technology extends 'reach' though whether this is enough to constitute, as Siemens claims, a new theory of learning is a different matter.

In contrast stronger more homogenous communities might provide greater emotional security, an affirmation of identity, mutual interdependence, more observable support and access to community resources (e.g. Barab et al., 2003). Strong communities can provide spaces for addressing life's challenges (Cole, 2011) and are often sought in education in which there have been sustained attempts to develop collaborative learning (e.g. McConnell, 2000; Stahl, 2006) and to develop ideal speech situations (e.g. Hammond, 2015). Learning OCs have, further, often been expected to address asymmetries, for example between learners and teachers (Harasim, 2000), between genders and disadvantaged groups (Schejter and Tirosh, 2012). More broadly, Hasler and Amichai-Hamburger (2013) and Austin (2006) saw OCs as offering opportunities for social cohesion through greater contact between separated groups and the term

community is often evoked in discussing online civic forums (e.g. Neuman, Bimber & Hindman, 2011).

Those promoting strong ties often accept that they are difficult to sustain and maintain in the face of cultural and technological constraints, as both Stanley's (2003) and Coco and Short's (2004) studies of civic networks attest. Strong communities need to support members' sense of agency and Leyton Escobar et al. (2014) in looking at video blogging chart the shift from the sharing of material to the establishment of a community, sustained by an ethic of 'philanthropy, equality, and empathy'. By focusing on agency community can be better seen as an achievement as, for example, claimed in Cole et al.'s (2011) analysis of an online group of women with disabilities and in Pentzold's (2011) research of Wikipedia volunteers.

Can strong community be designed? The literature on online learning community has offered models and guidance on the structuring of interaction, the role of teachers or moderators, issues of assessment, and even at times offered suggestions as to the 'platform' to be used (e.g. Anderson 2004 and Salmon, 2013). Designers have also considered the type of learning content that might trigger community involvement, be that instructional content or more narrative material (see Newman (2005) discussing the use of 'role-playing in-character communication'). A strong community needs leadership, if not leaders per se, and the guiding of interaction and cooperation, including the enculturation of newcomers, negotiation of identity and reification of practice (see, for example, Barab et al., 2003; Gray, 2004; Thomas, 2005).

The temptation is to see stronger ties as more valuable, for they provide members with important practical and emotional resources, but strongly tied communities may be seen as overly restrictive by at least some of their members and cliquish by outsiders.

3.3 TECHNOLOGY AND SUPPORT OF COMMUNITY

Many definitions of OC go little further than note that communication is technologically mediated, often with an underlying assumption that such mediation may support and indeed enable creative endeavour (e.g. Thomas, 2005) and even facilitate democratic change (Castells, 2012). Offering a more detached stance, Baym (2010: 6-12) identified seven ways through which technology could support online interaction: interactivity; temporal structure; mobility, social cues; storage; reach and replicability. For example, in terms of *reach* the technology offers quick and easy access to many-to-many communication which has enabled geographically diverse community; in terms of *temporality* asynchronous forums may provide more control over the time and location and have led to a particular rhythms for communication; in many online environments communication is *automatically stored* and members can access past archives, allowing greater interrogation of positions but also imposing inhibitions on communication.

While Baym's breakdown is useful, it does not fully capture the myriad ways in which technology might be adapted for use. Instead technology is increasingly seen as offering 'affordances' – actions which are 'called forth' by the properties of certain tools (e.g. Osiurak et al., 2010). Affordances need to be perceived and acted on by the user. If this is the case then it becomes difficult to generalise on the use or impact of technology. For example Twitter is popularly seen as supporting a particularly shallow kind of interaction but, as Gruzd et al. (2011) and Choi and Park (2014) show, there can be a palpable sense of community among Twitter followers. In contrast reflective debate has often been difficult to promote even when designed and appropriate software used (e.g. Littleton et al., 2005).

Reflecting this reported flexibility, the properties of technology can be seen as double edged. For example a consequence of *reach* is the sensation of being connected to a large

group of persons in ways that would be highly unlikely to happen otherwise. Some may find this experience 'immersive and compelling' (Bronack et al., 2011), but some will find it off-putting (e.g. as reported in Andrews et al., 2001) and some may even find it addictive, in particular in the context of multimedia role playing and gaming (e.g. Jiang, 2014). Meanwhile, in respect to *social cues,* the removed audience and flexibility over presentation can help generate a tendency to self-disclosure which may be liberating for some but lead to elements of narcissism and an unrecognised mixing of private and public worlds (e.g. Papacharissi, 2010) or, more simply, exhibitionism (Andrews et al., 2001). Members of OCs need to carefully balance between disclosure / intimacy and disclosing too much. Members too need to balance their awareness that community life requires their contribution with an obvious reluctance to participate if there is little social presence in the first place. OCs are often seen as more flexible (Faraj et al., 2011), more ephemeral, and easier to enter and exit (Komito, 1998; Norris, 2002) than face to face ones, but care must be taken not to over-generalise given the range of cases reported in the literature.

3.4 NORMATIVE ASSOCIATIONS WITH COMMUNITY

Many scholars do not explicitly align themselves with a normative position but the choice of the word community is not value free. Indeed its widespread use may reflect an attempt to re-configure technology to appear more welcoming, socially oriented and democratic (see for example Matei, 2005); certainly those developing new technology have frequently sought to promote openness as a desirable value (e.g. Berners-Lee and Fischetti, 2000).

Of course the literature has not entirely ignored the difficulties with, and objections to, online association. These include widely reported concerns about the negative aspects of technology use, including, in the context of adolesence, perceived invitations for self-

harm, addictive behaviour and bullying (see for example Charlton et al., 2013 and the more nuanced discussion of suicide clusters in Robertson, et al., 2012); some have also seen the willingness of members to volunteer their time and energy in promoting community as an invitation for exploitation by others (e.g. Terranova, 2004). Perhaps the greatest challenge to those whose default position is one of optimism about OC comes from studies of anti-democratic 'communities' (e.g. Horsti & Nikunen, 2013, in a study of far right groups in Finland) and of the sinister side to the web (e.g. O'Hagan, 2015). In these examples association can no longer be seen as a good in itself as it lacks the kind of reciprocity based upon:

> a mutual awareness of each other's needs, interests, condition, and situation. Second, it implies that the needs and interests of others are accepted as representing legitimate claims on the community in general and on ourselves in particular. Third, it implies a mutual acceptance of differences of needs, interests, and points of view within a community (Ladd, 1998: 165).

In fact Ladd is arguing for a particular type of (physical) community with ethical values at its heart but all communities need to take seriously the rights of all their members to express their views and at times to do so critically, albeit in the expectation of receiving reasonable criticism in return. In practice nearly all OCs will present examples of cyber bullying, 'grandstanding' or self-promotion, and of behaviour which offends a principle of respect for others. These practices can be challenged or more often strategically ignored. However if community carries a sense of mutual recognition then cyberbullying cannot be a cultural norm as it offends an intuitive idea of what a community is. Nor can OCs set out to promote racism and misogyny as they offend a principle of reciprocity in the wider society in which their members also participate.

Motivation to participate and normative values

Ethical questions about community are further raised when considering the motivation to participate. There have been different ways to understand motivation including Batson et al. (2002) who offered four types of motivation: egoism, altruism, collectivism, and principlism:

> for egoism, the ultimate goal is to increase one's own welfare; for altruism, it is to increase the welfare of another individual or individuals; for collectivism, to increase the welfare of a group; and for principlism, to uphold one or more moral principles.

Though Paulini et al. (2014) and others have used these categories to help understand participation online, it is important not to see each one as discrete or to argue that ethical participation is only altruistic. For example the motivation to sustain a community may be 'other regarding' but the continued existence of a community must be of personal value to the member who works to sustain it; OCs are maintained by the expectation of reciprocity (Wang and Wang 2008) and a growing sense of self-worth (Yardley, 2013). All communities need to meet some of the strategic needs of members even if they also seek to promote wider principles at the same time – see for example Pinkett (2003); Schuler (1996); and Stanley (2003) in relation to generating social capital within disadvantaged communities. A motivation for all participation is the hope (or expectation) that by engaging with others one can achieve things one could not achieve on one's own, even if some members may benefit more than others at less cost. Few communities can be sustained solely by appeal to wider principles or the 'heroism' observed in software piracy in Yu et al. (2015); in contrast if only based on a possessive individualism it is difficult to see any community life as possible. Of course context is important here; motivation cannot be understood solely in terms of the individual dispositions of

members, but needs to take in the cultural norms of the community (e.g. Pai and Tsai, 2016).

4.   A NEW DEFINITION OF ONLINE COMMUNITY THAT IS BROAD AND COMPLEX

The goal set out at the start of the paper was to reach a definition of OC which was workable but complex enough to allow for differentiation. This led to an examination of the varied attempts to define and use OC. The literature can be seen as helpful in offering very broad definitions (e.g. Preece, 2001) and introducing to discussion of community concepts such as threshold (e.g. Jones, 1997), emotional connection (e.g. Rovia, 2004) and learning artefact (e.g. Barton, 2012). However these and other elements have not been fully integrated into a general definition of OC. Nor have the various attempts to offer typologies of community (see for example Hara, Shachaf and Stoerger, 2009; Henri and Pudelko, 2003; Porter, 2004; Stanoevska-Slabeva and Schmid, 2001) provided the necessary integration. These have tended to focus more on sponsorship of community or community goals, without fully addressing the existential question: 'What is a community?'. The definition below attempts, then, to address a gap in the literature by offering a holistic view of community which integrates many of the key themes in the literature. OC is:

> constituted by people who meet together in order to address instrumental, affective goals and at times to create joint artefacts. Interaction between members is mediated by internet technology. In order to constitute community members need to: *show commitment* to others; experience a sense *of connection* (e.g. members need to identify themselves as members); exhibit *reciprocity* (e.g. the rights of other members are recognised); develop observable, sustained patterns

of *interaction* with others; and show the necessary *agency* to maintain and develop interaction. Community creates *consequences* which are of value for members.

INSERT TABLE 1 ABOUT HERE

This definition, more fully elaborated in Table 1, captures the key elements of OC and meets the brief of being broad while allowing a distinction to be made between different types of community (Table 1, columns 3 and 4). Most communities contain a mix of strong and weak characteristics, and members of communities will have a varying sense of belonging and patterns of behaviour across the different communities to which they belong. However in stronger communities there is a more generalised commitment, more emotional connection, and greater agency expended by members with consequences for sustained interaction, bonding and mutual interdependence. Strong communities, as seen earlier, are often promoted in learning communities (e.g. Palloff and Pratt, 2013) or among more informal groups in which there is a sense of shared interests and concerns (e.g. Cole et al., 2011; Leyton Escobar et al., 2014). Strong communities find ways of over-coming constraints on participation, show awareness of asymmetries in the process of interaction and high levels of reciprocity. Weaker communities will exhibit some of the characteristics of strong communities, for example members may establish a connection with others and show commitment through participation, but these sentiments will be less generalised. Weak communities may be focused on instrumental gains and asymmetry in roles may be passed over as long as interaction is regular enough to benefit all members. Weaker community may be the unintended outcome of attempts to promote strong community (e.g. Littleton and Whitelock, 2005; Santos and Hammond, 2008) or may be valued in its own right (Siemens, 2005).

4.1   WHAT IS EXCLUDED FROM THIS DEFINITION OF ONLINE COMMUNITY?

First, this definition of community implies a minimum level of interaction, commitment and connection (see Jones, 1997; Ridings et al., 2002). Community needs to be an identifiable social phenomenon with observable patterns of interaction and a shared culture. This means that very weak 'communities' are not communities at all but better described with a less value-laden term such as network. Members need to be able to identify themselves as such and feel some level of connection with each other.

Second, captured in this definition of community is a sense of reciprocity which implies mutual respect and mutual interdependence. Communities, even weak communities, cannot be designed with solely commercial purposes in mind (Wiertz and de Ruyter, 2007) thus while commercial networks may provide advantages for their members they do not constitute community (Terranova, 2004). Furthermore, communities need to encourage reciprocity so that members take other points of view seriously and help those with less experience or knowledge for both ethical and practical reasons. The claim is that community should be used not only to describe what members do but to provoke critical reflection on how members behave. 'Communities' with anti-democratic intentions (see Horsti and Nikunen, 2013 earlier) or ones dominated by anti-democratic practices are not communities at all as they lack this element of reciprocity.

4.2   PROBLEMATISING TECHNOLOGICAL MEDIATION

So far the definition of OC has not gone further than to describe OC as mediated by online technology. This implies surprisingly little about the quality of interaction as many of the themes which have dominated discussion of OC (for example, the prevalence of ties of sentiment rather than locality, the importance of imagined connection with others, issues of reputational trust) are not unique to online mediation at all but were instead signalled across a range of much earlier work (e.g. Durkheim, 2014 [1893]; Etzioni and Etzioni, 1959; Giddens, 1990; Tönnies, 1963 [1887] and so on). Of course online media

have implications for community, in particular by allowing greater reach, multimedia and automatic storage of interactions, but as seen earlier it is difficult to generalise what these implications are (Gruzd et al., 2011). Members can take advantage of, or they can feel constrained by, being online.

Technology use is difficult to predict as it is always used within a social cultural context (Lindtner et al., 2008). However that context is increasingly one in which technology is embedded. This means that as offline and online worlds further merge it is easy to imagine that scholars will at some stage simply talk about community as encompassing both physical and technological mediation and drop the preface online or web based.

5. CONCLUSION

This paper began by noting the challenges in defining community and in defining the idea of being online. It examined a range of definitions and uses of the term OC and settled on a definition which was both broad enough to be usable and complex enough to allow for differentiation. Constituent elements of community were commitment, connection, reciprocity, interaction, agency, and consequences. OCs vary. They can be strong or weak, but very weak ones are not communities at all, nor are ones sponsored primarily for commercial gain. OCs are created by their members, but that creation is played out in myriad ways depending on technology and milieu and the ever shifting nature of the worlds in which members participate. It is recognised that the meaning of community, still less OC, will never be settled. The paper offers a contribution to this ongoing discussion by providing a clear, comprehensive definition of OC and by showing how strength of community can be evaluated. Furthermore, it brings an explicit stance on ethics and the mediation of interaction by technology into the discussion of community.

Of course it is possible to use other conceptual labels, other than community. Hodgson and Reynolds (2005) prefer the notion of a tolerant and cosmopolitan online 'city life'. Scholars in the field of literacy studies have used conceptual tools such as digital participation (Thorne 2009); affinity spaces (Gee, 2005) and literacy events (Barton, 2012) interchangeably with community or to replace it altogether. However, this is changing the word rather than the concept and in any case word 'community' is worth keeping. It remains a preferred term for many researchers and it is a word to which people turn to in order to describe their online interaction (e.g. Baym, 2010: 74), it is particularly employed when commitment to other members grows stronger (e.g. Conrad, 2005; Penzold, 2010). It is a term that will and should continue to be used to capture online interaction.

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Acknowledgements

Element of community	Examples	In strong communities	In weak communities
Commitment	Members feel a commitment to each other and a willingness to expand time and energy in maintaining interaction (e.g. Rotman and Preece, 2010), members invest trust in each other (e.g. Rovai and Jordan 2004).	Commitment to others is generalised and not restricted to those with formal responsibilities.	Differentiated levels of commitment. Constraints on willingness to support others.
Connection	Members feel a sense of this being 'my community' in which they are members and others are not. Members share interests (e.g. Rotman and Preece, 2010) Members feel a concern for others (e.g. Rovai and Jordan 2004) and feel emotionally connected to them (e.g. Rheingold 1993). Members experience a sense of companionship and security (e.g. Barab et al., 2003).	Members recognise other members; generalised sense of trust and concern for well-being of others.	Community membership is often defined by instrumental goals.
Reciprocity	Members recognise that others have the right to express opinions; they deal respectfully with disagreements. A sense of equal rights (e.g. Leyton Escobar et al., 2014) prevails. Bullying and intimidation are not cultural norms.	Strong sense of mutual recognition and awareness of ways in which asymmetries are created.	Recognition that participation and presence of others is needed for viable community.

	Members believe that other will respond to suggestions and request for help (e.g. Santos and Hammond 2008; Wang and Wang, 2008).		
Interaction	Members participate with persistence, regularity and over time (e.g. Jones, 1997). Guidance for interaction and support for new members available.	Persistent communication and willingness to support others and share perspectives.	Highly differentiated rates of participation.
Agency	Members maintain community through their interaction; community an achievement (e.g. Cole, 2011; Pentzold, 2011). Members seek to make a difference (e.g. Rovai and Jordan, 2004). Members have a variety of motives for participation which are difficult to untangle. Altruistic motivation may cover expectations of reciprocity (e.g. Wang and Fesenmaier, 2003); motivation is influenced by context (e.g. Pai and Tsai, 2015). Participation may be guided (e.g. Newman, 2005; Salmon, 2013).	General willingness to expend energy and imagination in maintaining community; members motivation is 'other regarding' as well as instrumental. Community is experienced as significant for self-identity, community resources are seen as an achievement.	Other regarding motivation mixed with concern for instrumental gain. Resources for guiding participation under developed or under used.

Consequences:	Members create archives of online interactions within which cultural norms can be identified (e.g. Andrews et al. 2001; Leyton Escobar et al., 2014). Members produce bridging or bonding capital (e.g. Ellison et al. 2007; Norris, 2002; Stanley 2003). Members may produce community artefacts (e.g. Pentzold, 2011), funds of knowledge (e.g. Barton, 2012) and other resources that meet their needs (e.g. Rovai, 2004). Members experience mutual interdependence and sense of self-worth (e.g.Yardley, 2013).	Members have access to resources for practical and emotional support; strong sense of mutual interdependence.	Members gain access to other viewpoints and to, largely practical, information and support.

TABLE 1: ELEMENTS OF STRONG AND WEAK COMMUNITY